

REMARKS

Reconsideration of this application in view of the above amendments and following remarks is requested. After entry of this amendment, claims 1-21, 23-33, 35-42 and 44-54 are pending in the application. In this amendment, claims 1, 2, 23, 31, 35, 45 and 51 are amended.

In the office action dated November 29, 2005, the examiner: 1) rejects claims 3, 4, 16 and 17 under 35 U.S.C. §112, second paragraph, and being indefinite because the phrase “the gross shape” lacks antecedent basis; 2) rejects claims 1-4, 12, 16-17, 23, 31, 35 and 48 under 35 U.S.C. §102 as being anticipated by Sheehan (US Patent No. 6,106,466); 3) rejects claims 11 and 45 under 35 U.S.C. §103(a) as being unpatentable over the combination of Sheehan (US Patent No. 6,106,466) and Seyed-Bolorforosh (US Patent No. 5,841,889); and 4) rejects claim 53 under 35 U.S.C. §103(a) as being unpatentable over Sheehan (US Patent No. 6,106,466) in view of Slayton (US Patent No. 6,050,943). The examiner allows claims 5-10, 13-15, 18-21, 24-30, 32, 33, 36-42, 44, 46, 47, 49 and 50.

Claim Rejections - 35 USC § 112

The examiner rejects claims 3, 4, 16 and 17 under 35 U.S.C. §112, second paragraph, and being indefinite because the phrase “the gross shape” lacks antecedent basis. Applicant has amended the respective independent claims to include the feature “gross shape.” Accordingly, claims 3, 4, 16 and 17 have proper antecedent basis. Applicant respectfully requests that the examiner withdraw the 35 U.S.C. §112, second paragraph, rejections.

Claim Rejections - 35 USC § 102

The examiner rejects claims 1-4, 12, 16-17, 23, 31, 35 and 48 under 35 U.S.C. §102 as being anticipated by Sheehan (US Patent No. 6,106,466). Applicant respectfully submits

that the above-identified claims are allowable in view of amendments to respective independent claims 1, 23, 35 and 45. Claims 1, 23, 35 and 45, as amended, each recite the feature of developing gross shape based on variation of a point-scatterer representation of a microstructure of the medium. Sheehan, and the prior art of record, fail to disclose, teach or suggest this feature.

Further, independent claims 1 and 45, as amended, recite the feature of developing acoustic properties for a medium based on variation of a point-scatterer representation of the medium microstructure. In the office action, the examiner states that Sheehan purportedly teaches microstructure. However, Sheehan fails to disclose, teach or suggest that microstructure can be described by point-like scatterers, and that this model, at least in the claim 1 and 45 embodiments, in combination with imaging system characteristics characterizes the entire image.

Claim Rejections – 35 USC § 103

The examiner rejects claims 11 and 45 under 35 U.S.C. §103(a) as being unpatentable over the combination of Sheehan (US Patent No. 6,106,466) and Seyed-Bolorforosh (US Patent No. 5,841,889); and rejects claim 53 under 35 U.S.C. §103(a) as being unpatentable over Sheehan (US Patent No. 6,106,466) in view of Slayton (US Patent No. 6,050,943).

Applicant submits that the amendments detailed above to independent claims 1, 23, 35 and 45, also place claims 11, 45 and 53 in condition for allowance as the art cited in the office action fails to teach or suggest all of the features of the claimed inventions.

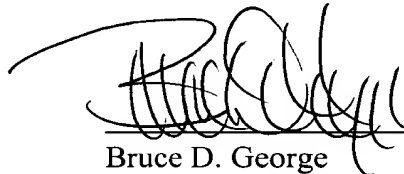
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**PATENT
REPLY FILED UNDER EXPEDITED
PROCEDURE PURSUANT TO
37 CFR § 1.116**

CONCLUSION

In light of the above amendments and remarks, applicant submits that pending claims 1-21, 23-33, 35-42 and 44-54 are allowable, and that the application is in condition for allowance, thereby providing that this response and amendment be entered after-final. Applicant requests that the examiner call the undersigned attorney during review of this after-final response and amendment to advance prosecution of this application to patent issuance.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Bruce D. George", is written over a horizontal line.

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